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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,187	07/24/2003	John Davies	779-X03-002	1556

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EXAMINER

MITCHELL, TEENA KAY

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,187

Applicant(s)

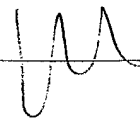
DAVIES, JOHN

Examiner

Teena Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/05/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in United Kingdom on 01/29/01. It is noted, however, that applicant has not filed a certified copy of the 0102232.6 application as required by 35 U.S.C. 119(b).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the sound box over the boom microphone of the headset must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: On page 7, [0030] "...inlet filter 6..." then in paragraph [0031] "...filter canister fitting 6..." in order to provide consistency throughout the specification either reference numeral should be labeled inlet filter or filter canister fitting.

Correction is required.

Claim Objections

Claims 4-7 and 10 are objected to because of the following informalities: Claim 4 limitations do not further limit the independent claim because the elements of claim 4 are already present in claim 1. Inasmuch as claim 4 does not further limit claim 1 and is improper claims 5 and 6 are also improper because they depend from claim 4.

Claim 7, "...the sound box..." lacks antecedent basis.

Claim 10, "...ratio..." should be amended to read --radio—. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Jervmo et.al. (WO 97/37724).

Jervmo in a microphone adapter (9) for a respirator having a speech projector (at 5), the adapter comprising a sound tube (4) with a first open end designed to be located in the vicinity of the speech projector (at 5) of the respirator and a second open end designed to be attached to a microphone (9), whereby, in use speech emanating from the speech projector (at 5) is transmitted via the sound tube (4) to the microphone (9).

With respect to claim 2, Jervmo discloses a microphone box (8) in which the second open end of the sound tube (4) terminates, said box being arranged to fit over a microphone (9) and shield the microphone from any incident sound other than that received via the sound tube (4).

With respect to claim 3, Jervmo discloses a microphone box (8) arranged to releasably push over a microphone (9).

With respect to claim 4, note rejection of claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jervmo (WO 97/37724) in view of Campbell (5,895,537). (The examiner is treating claims 5 and 6 as depending from claim 1).

Jervmo disclose that the microphone adapter can be used in breathing protection mask. Jervmo mask does not comprise an exhale diaphragm.

Campbell in a microphone mask teaches a mask with an exhale diaphragm (25) located in substantially in front of the mouth of a wearer of the respirator well known in the art (Col. 4, lines 45-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the respirator of Jervmo to employ any well known exhale diaphragm as such outlet valve systems are well known in the art as taught by Campbell.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jervmo (WO 97/37724) in view of Chen.

The difference between Jervmo and claim 6 is an inner face seal internal of an outer layer of the respirator. Chen in a respirator teaches an inner face seal (Figs. 1, 2). It would have been obvious to one of ordinary skill in the art at the time the invention

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was made to substitute the mask of Jervmo to employ any well known mask with an inner face seal because Jervmo discloses the use of some form of face mask and inasmuch as Chen teaches a well known respiratory mask with an inner face seal providing a better seal around the user's face. It is also inherent that exhale diaphragm's can extend through both the internal face and the outer layer so as to direct expired air out of the mask body.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7, 8, and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Larkin (3,184,556).

Larkin in a headset discloses a headset (Figs. 1, 2) to be worn by an operative, the headset having earphones (at 29), a boom microphone (19) and a connection for a radio (via 44) enabling the operative to have two way communication; a respirator (34) and a microphone adaptor (at 35), the microphone adaptor (24) having a sound tube (via 25) and a microphone box (10) arranged such that when the operative is wearing the respirator (34) the operative can put the sound tube (31) over the boom microphone of the headset (via 26, note Fig. 3), the headset adaptor being arranged to receive

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speech from within the respirator (34) and transmit that speech via the microphone tube (26) and the microphone box(10) to the boom microphone (at 26, 19).

With respect to claim 8, Larkin discloses wherein the respirator (34) comprises a speech projector (39, 40, 38) and the adaptor is arranged to receive speech from within the respirator via said speech projector.

With respect to claim 11, Larkin discloses a headset (Figs. 1, 2) having a boom microphone (19) to continue to use that microphone when wearing a respirator (34) characterised by a sound tube (via 25) designed at a first end to receive sound from the respirator and adapted at a second end to make a releasable push-fit with an end of the microphone boom for rapid connection thereto (via 31).

With respect to claim 12, Larkin discloses the second end of the sound tube (at 25) carries a microphone box (at 31) designed to fit over the end of the microphone boom (26) and to shield the latter from incident sound other than that received via the sound tube.

With respect to claim 13, Larkin discloses that the microphone box defines a duct (at 27) by which sound is transmitted from the tube around an end of the boom (26) and then radially inward to a microphone sensor (19) through a lateral aperture in the boom (36).

With respect to claim 14, Larkin discloses a headset (Figs. 1, 2) having a boom (at 26) which carries a microphone (19) at one end; characterised by a channel (36) which makes a releasable push fit over the end of the boom (26, Fig. 3) and which leads

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to a position in the respirator (34) where speech from the user can be received for transmission along the channel (36) to the microphone (19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larkin in view of Jervmo (WO 97/37724).

Inasmuch as Jervmo teaches the claimed limitations of claim 1 (see rejection above), it would be obvious to employ the adaptor of Jervmo into the device of Larkin doing so would have provided an adaptor means for connection of the headset and the respirator to the microphone.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larkin (3,184,556) in view of Cline (4,903,298).

The difference between Larkin and claim 10 is a digitally encrypted radio.

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Cline in a radio system teaches a digitally encrypted radio unit (200) providing the user with a secure, private communications link.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Larkin to employ any well known digitally encrypted radio doing so would have provided a user with a secure private communication link including the digitally encrypted radio unit taught by Cline.

Conclusion

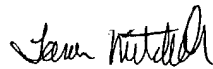
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The balance of art is cited to show microphone devices and respirators: 6,167,251; 5,933,511; 5,990,793; 5,572,990; 5,463,693; 5,224,474; 5,103,815; 4,980,926; 4,491,669; 4,537,276; 3,180,333; 4,118,606.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teena Mitchell whose telephone number is (703) 308-4016. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Teena Mitchell
Examiner
Art Unit 3743
September 16, 2004